46

A
TREATISE
ON THE
BREWING OF BEER,
&c. &c.

70
MAY

18583 151/A

A Saving of Twenty per Cent.

A
TREATISE
ON THE
BREWING OF BEER,

WHEREIN IS PROVED
That one Buſhel of Malt will produce a Gallon of Beer more than another Buſhel of an equal Strength, although both Malts be made of one Sort or Species of Barley.

Improvements in the Brew-houſe, and Brewing Utenſils.

Showing the cauſe what makes hard and ſour Beer.

Directions for preventing Beer from becoming ſour or foxed, even if brewed in the warmeſt Seaſon.

ALSO

Directions in what State to cleanſe the Beer, ſo as to have it fine without uſing any art or device whatſoever; and for the Management of the Beer in the Cellar.

Some Obſervations in the Choice of HOPS;

Proving that they are uſeful after they have been uſed in brewing.

The different Experiments are from Twenty Years Practice,

BY E. HUGHES.

☞ Some very uſeful and neceſſary directions to the Publican who retails Common Brewer's Beer.

UXBRIDGE:
PRINTED FOR THE AUTHOR, AND SOLD BY T. LAKE.
SOLD ALSO BY E. NEWBERY, ST. PAUL'S CHURCH YARD,
LONDON,
AND ALL BOOKSELLERS IN TOWN OR COUNTRY,
1796.

COMMISSIONERS OF PATENTS FOR INVENTIONS

BRITISH MUSEUM
1 MAY 70

PATENT OFFICE LIBRARY

PREFACE.

BEFORE I preſumed to offer this ſmall treatiſe to the public, the different modes and methods, here recommend, I have proved by different experiments, which I flatter myſelf will be found of utility, particularly to private families, eſpecially farmers, becauſe their ſervants have very little knowlege of brewing, their time being ſo much employed in other buſineſs, and ſo frequently are they changing their employ that they are rendered incapable of being competent in brewing. I do not preſume to dictate to thoſe who are proficients; but it muſt be acknowleged that good malt is frequently marred in brewing by perſons who have very little or no knowlege of brewing, and I flatter myſelf that by a peruſal of this treatiſe it will enable them to be more competent in making the beſt of the malt intruſted to their care, to the greater ſatisfaction and benefit of their employers.

Waters having a great predominance in brewing, I have given directions in the choice and improvement of them.

The improvements in the brewing utenſils will be attended with ſome expence, but the utility ariſing therefrom will ſoon make amends.

I have taken the liberty to admoniſh the retailer of common brewer's beer, becauſe, from their inattention in managing the beer after it comes into their ſtock or poſſeſſion, the blame, if any, is imputed to the brewer: but I am fully convinced to the contrary, from the almoſt daily practice of the common brewer, and their malt being of the firſt quality, as country brewers generally make their own malt, and that from the beſt barley, together with the conveniency of their utenſils, enables them to have the advantage of moſt private families that brew their own beer; therefore it principally depends on the conduct of the publican as to the quality of the beer, after it comes into his ſtock.

I have taken the liberty to give ſome directions in the choice of malt, not that I mean to challenge the maltſter, or give him directions in the management of his corn, except in the drying. I preſume if malt is not attended to on the kiln and perfectly ſound dryed, it never will produce good and wholeſome beer.

E. HUGHES.

16th April, 1796.

BRITISH MUSEUM 70 MAY

COMMISSIONERS OF PATENTS FOR INVENTIONS

A TREATISE.

On Waters.

WATERS differ in their quality, that is to ſay, in extracting the goodneſs from the Malt; it is, therefore, very neceſſary for every one who profeſſes the brewing of Beer, to be well acquainted with the nature and quality of the Water he brews with; for as the quality of the water is, ſo depends the brewing of beer. I am fully perſuaded that waters ſo differ in quality, they will very much add or diminiſh the quantity and quality of the beer.

Well Waters ought not to be uſed only in caſes of neceſſity, when waters of a ſofter quality cannot be procured: the well water ſhould be pumped into tubs, or any convenient veſſel that is clean and ſweet. It is a cuſtom with many to fill the copper a day or two, and ſometimes longer, before they begin the operation of brewing, but this I ſtrongly forbid; for a liquid cannot be too ſhort a time in the copper, except it is in a boiling ſtate; my reaſons for this I ſhall point out in another part of this treatiſe. I would recommend freſh bran to be put into the well water whilſt in the tubs, and now and then give it a ſtir, this will cauſe a ſort of fermentation, and will likewiſe ſoften the water.

The

1 MAY 70

The time for keeping water in the tubs muſt depend upon the ſeaſon of the year: if in winter, or moderate cool weather, a week will not be too long; but if in ſummer, two days will be ſufficient.

Spring or River Water is far preferable to Well Water, but river or ſpring waters differ very much in their ſoftneſs, and that which will lather beſt with ſoap is a convincing proof, and is to be prefered for brewing; for,

Firſt,—It will leave the grains dryer than well water of a harſher quality.

Secondly,—The beer will come to a quicker fermentation in the tun; and,

Thirdly,—It will alſo fine itſelf much ſooner in the caſk, than if brewed from well water.

Rain Water, ſuch as runs off tiled roofs, is, undoubtedly, to be prefered before well or river water in brewing, being of a ſimple and ſoft nature.

There is one very great object to the intereſt of the brewer;—Beer, brewed with rain or river water, will be ſtronger than beer brewed with well water from an equal quantity of Malt, becauſe it will have a freer acceſs to the Malt; and, as I ſaid before, it will leave the grains much dryer than well water, which is convincing, the dryer the grains are, the better will be the beer.

Many perſons very much prefer Pond Waters, ſuch that are frequently diſturbed by horſes and other cattle, which generally cauſes it to be in a thick muddy ſtate; but the ſediments of this thick muddy water muſt be found prejudicial; for when the wort is emptied out of the cooling tubs into the working tun, or running from the coolers into the tun, a part of the ſediment, from the foulneſs of the water, will follow the wort into the tun, conſequently the yeaſt will be in a foul ſtate and cannot be of that utility in baking, as though the brewing had been from pure clean water.

There is a great difficulty often happens in making beer come to a fermentation in the tun; this, I verily believe, is principally owing to the hardneſs of the water it is brewed with.

Some Obſervations on the Grinding of Malt.

Much depends on the grinding of Malt. Many people give directions to have their malt ground ſmall, having an idea that the water will mix itſelf with, and have a more free acceſs to it, than when ground in a more coarſer ſtate; but this idea is very erroneous. Malt ſhould be only broke in the Mill, that is, if poſſible, every corn ſhould be only bruiſed; malt ground in this manner will diſcharge the wort in a fine ſtate throughout the whole.

I have known many perſons neglect giving orders for their malt till the day before they intend to brew; but malt ſhould be ground four or five days, or a week would not be too long for brown malt, but great care muſt be taken to keep it in a dry place.

Malt, ground a reaſonable time before it is uſed, loſes the heat which it receives in grinding, and reduces it to a ſoft and mellow ſtate; it will receive the water more freely, and a greater quantity of wort may be made than if it was brewed immediately after it was ground. The beer will alſo work much better in the tun and in leſs time become fit for uſe than if brewed as ſoon as it comes from the mill. This is proved by good houſekeepers, who have their wheat ground two or three days before they uſe it; for by loſing the heat it receives from the mill in grinding, the flour will be lighter, and receive the yeaſt and water more freely, than if uſed immediately from the mill.

Brewing is generally left to the care of ſervants, particularly in farm houſes, who frequently have at the ſame time other buſineſs to perform, which cauſes the brewing to be neglected, particularly in its firſt ſtage. The maſh in this firſt ſtage determines the whole of the brewing, for the malt ought to be well mixed with the water, which will cauſe ſome time and labour; therefore the perſon employed in brewing ſhould not, on that day, have any other buſineſs to perform, ſo as to engroſs any time or attention from the brewing, for any part neglected may mar the whole, which is too frequently the caſe.

PATENT OFFICE LIBRARY

Improvement in the Maſh Tun.

Maſh Tuns ſhould have falſe bottoms, to take up as occaſion may require;—they ſhould be about two inches clear of the fixed bottom, with holes therein, about a ſixth part of an inch in diameter. The falſe bottom anſwers two good purpoſes;

Firſt,—You may be more expeditious in maſhing, by having a free acceſs to all parts of the maſh tun, which, with a tap vaſe or ſome ſuch like inſtrument being in the maſh tun, will impede the ſtirring of the maſh, therefore ſome part of the malt will not be mixed with the water.

Secondly,—The falſe bottom will drain the grains dryer than the tap vaſe, and in the fixed bottom there will be a ſediment left, which, with one bottom only, would have paſſed through the tap vaſe, and a part of it accompanied the wort down into the tun. This will anſwer another good purpoſe; for the ſediment or fees not accompanying the wort into the copper, it will want leſs boiling, as it will break ſooner and fine itſelf.

Note. Where the falſe bottom is used the tap muſt ſpend through a cock at the bottom of the tun. The holes in the falſe bottom may be about three or four inches diſtance from each other.

Fail not to boil your water ſix or eight minutes, then let it into the maſh tun; if time will permit, do not put your malt in for maſhing till the ſteam has eſcaped and you can ſee your face in the water; but if time will not admit of this, add about one gallon of cold water to eighteen gallons of hot. Whilſt you put your malt into the tun, let a perſon ſtir it to prevent its clotting, then well maſh it, and let the maſh ſtand two hours at leaſt. The ſecond maſh need not ſtand ſo long as the firſt. If convenient, always make uſe of hot water for your ſmall beer, for by boiling the water a few minutes it will ſoften it, and will cauſe it to have a more free acceſs to the malt, and the wort will require leſs boiling.

PATENT OFFICE LIBRARY

Boiling of the Worts.

Many brewers boil their worts from one to two hours; this is very much practiſed in private families;—a great part of the time the wort is in a ſimmering ſtate the fire perhaps is not attended to, the perſon who has the care of the brewing is, as I ſaid before, frequently employed in ſome other buſineſs, therefore this very material part is neglected: As ſoon as the wort is in the copper it ſhould be made to boil as quick as poſſible, and a briſk fire ſhould be kept under the copper to cauſe the wort to boil as faſt as poſſible, for faſt boiling will cauſe the wort to break and fine itſelf much ſooner than it would if kept in a ſlow boiling ſtate. Thirty or forty minutes will be ſufficient to boil ale, and one hour if ſtrong beer. This quick boiling will cauſe a ſaving of one gallon in twenty, at leaſt, which muſt be acknowleged a *great advantage*, conſidering the preſent high price of malt.

I will preſume to ſay there will be a ſaving in the wood or coal by boiling the wort, as is commonly ſaid, a gallop, when it riſes itſelf conſiderably above the copper.

The copper ſhould have a curve made of wood, fixed round the brim, to prevent the wort from being ſpilt when boiling; or the copper ſhould be ſo hung, with a ſheet of lead fixed round the brim in a ſloping poſition, that when the wort is haſtily boiling, it would fall on the lead and immediately return into the copper, therefore it would prevent the wort from waſting or boiling over.

Cooling of the Worts.

As ſoon as the wort is out of the copper the next thing is to get the heat out as ſoon as poſſible, and to get it in a ſtate for fermentation. Moſt private brewers, and many victuallers, ſeparate their worts into tubs, bowls, pans, &c. for cooling; I have ſeen wort in no leſs than twelve or ſixteen different utenſils; worts being of a ſticky quality, it muſt be acknowleged that a loſs is ſuſtained by having the wort in ſo many utenſils, and alſo very inconvenient to pour the wort from the tubs and pans into the working tun; for in each of the before mentioned utenſils will be a ſediment, which too frequently follows the wort into the working tun.

Now to prevent the uſe of all theſe ſmall utenſils, a brew-houſe, though ever ſo ſmall, will admit of two coolers being erected; for two coolers will take up nearly the ſame room in the brew-houſe as if only one were to be erected; for one cooler ſhould be nearly underneath the other, ſo that the ſecond cooler may receive the wort from the firſt. Care muſt be taken in fixing the coolers, ſo as to admit the working tun underneath the coolers, to receive the wort: but this need not be conſulted where there is a conveniency to convey the worts and work them in the cellar.

Note. A victualler is compelled by law not to alter the poſition of his coolers without giving notice to the exciſe officer;—now private families have the advantage; they may have their coolers fixed in the brew-houſe, or to lay on treſtles, and move them to any part, as occaſion may require.

The ſize of the coolers muſt ſo correſpond with the quantity of malt brewed, that in warm weather the worts do not exceed two inches in depth in the coolers; for in ſummer brewing the heat cannot too ſoon eſcape from the worts; and this is the evil—not having a conveniency to ſeparate the worts in a thin ſtate, the brewer has not been able to get the heat out,—he has let the wort down into the working tun in a warm ſtate, which has often brought on the fox, in a ſhort time became ſour, and rendered unfit for drinking.

I ſhall point out one more improvement for cooling the worts more expeditiouſly: In many brew-houſes there is no conveniency,

ency, when the worts come out of the copper, for the ſteam to eſcape out of the brew-houſe, but will continue for a time in a thick cloudy ſtate, to the great detriment of the worts;—to remedy this, I would recommend flap ſhutters to be erected in as many parts of the brew-houſe as convenient, and the building will admit; the flap ſhutters will permit the ſteam to eſcape and very rapidly cool the worts. Theſe ſhutters are as convenient in the winter, or when the weather is moderately cool, for they are ſo contrived that you may ſet them to what centre you pleaſe.

From theſe improvements the brewing will be more expeditiouſly performed, as the worts will, of courſe, from this conveniency, much ſooner make way for the ſmall beer, and totally prevent its being left in the copper all night, which is too often practiſed, to the injury of thoſe who drink it, as it will not be fine, but remain in a thick wey colour, which is owing to its being in the copper too long, and not being kept in a boiling ſtate; for if a copper has been in uſe twenty years it will at times ſhew ſymtoms of the verdigreaſe, which is a ſufficient voucher that the wort cannot be too ſhort a time in the copper, except when boiling.

Coolers will laſt many years without repairing; when, on the contrary, cooling tubs, &c. are frequently out of repair, and are as lumber, being of little or no uſe, except when uſed in brewing.

From the before mentioned improvements you will always finiſh your brewing before a late hour at night, which will enable you to pay the more attention to the worts in the tuns, &c.

Care ſhould be taken to keep the brewing utenſils as clean and as ſweet as thoſe uſed in a dairy; for without cleanlineſs tis impoſſible to have your beer in a good and wholeſome ſtate.

The copper ſhould be cleaned after each brewing, as it will keep it bright; when it is uſed but ſeldom, and in wet or damp weather, the verdigreaſe will appear, but care ſhould be taken to examine and clean it, previous to the water's being put in for brewing.

It often happens, where the maſh tun is not uſed for a working tun, the grains are left in the maſh tun till the next morning, they will then be in a ſour ſtate; therefore the tun ſhould be ſcalded before the next brewing. If in very warm weather ſome quick lime, that is, lime not ſlacked, will be neceſſary, by adding ſome water to diſſolve it to the ſame conſiſtence as uſed for a white-waſh; then with a mop or bruſh wet the tun with the lime like unto white-waſhing; after the lime has been on about a day it may be waſhed off.

Much care ſhould be taken to keep the coolers and working tuns in a clean ſtate, by frequently ſcalding; it will be neceſſary in warm weather to lime the coolers and working tuns;—this is an excellent remedy where the coolers and tuns are tinged with the fox, as alſo a preventative againſt that fulſome complaint. Experience will inform you that the uſe of lime is excellent in cleaning the utenſils.

When you ſoak the coolers, &c. previous to brewing, add ſome lime to the water, as it will ſearch and purge the joints of the coolers and tubs, by cleaning them from diſagreeable ſmells.

Particular attention ſhould be paid to the cooling of the worts, by having coolers as before mentioned. You may let your worts down into the tun as quick or as ſlow as you pleaſe and as the ſeaſon may require; in very cold weather it ſhould go down into the tun from the cooler by a good ſtream, as the worts require to go down into the tun in a warm ſtate, particularly when there is but a ſmall quantity brewed. In ſummer brewing your worts will require to go down into the tun in a cold ſtate; however it will be much the beſt for them to be cold than too warm, therefore you ſhould ſet the cock or plug to diſcharge the worts from the coolers into the tun but ſlow and dribbling; for by going down ſlowly it will prevent a haſty fermentation, and conſequently will have the good effect to prevent your tun of beer from being foxed; therefore it muſt be allowed to be convenient and neceſſary to have coolers erected, as the worts will go down into the tun in almoſt one regular degree of heat.

On the contrary, when worts are cooled in tubs, pans, &c. they are emptied into the working tun in different degrees of heat, one after another; perhaps in ſome of theſe cooling tubs or pans the worts are two or three inches in depth; in others, ſix or ſeven inches; therefore the worts will be of different degrees of heat, and by having part of the worts let down into the tun much warmer than thoſe already down, and which, perhaps, are in a fermentation, thoſe worts will, of courſe, cauſe a fermentation too haſtily, —will frequently cauſe the tun of beer to be foxed, and will always be in a heavy ſtate, for the yeaſt will not ſeparate itſelf from the beer; this renders the coolers more neceſſary and convenient.

PATENT OFFICE LIBRARY

Attending the Working Tun.

Attention ſhould be paid to the beer when in the tun. It is a cuſtom with many brewers to put their yeaſt for that brewing into the tun at one time: I will prove that practice to be very erroneous, for by adding the quantity of yeaſt you intend to uſe at one time, may cauſe a fermentation too haſtily, and then you have no remedy. You ſhould feed your tun with yeaſt by adding a little at a time, as occaſion may require, for by ſo doing you will always be maſter of your tun of beer, by having it in what ſtate of fermentation you pleaſe, as the quality of malt and waters differ, it will require more or leſs yeaſt to ferment it, and by adding the yeaſt at different times you will be enabled to form ſuch a judgment as never to over-yeaſt your tun. Every time you add more yeaſt you ſhould ſtir your beer with a bowl or bucket.

Cleanſing.

It is a practice with many people to keep their beer in the tun from four to ſix days;

by that time the yeaſt will fall to the bottom of the tun, and the beer will be in a flat, dead ſtate; it will always be *headdy* beer, being kept ſo long before it is cleanſed; it will not be inclined to work in the caſks, nor will it drink with a pleaſant, lively taſte. There is no coming at any exact time, with reſpect to hours, when your beer will be ready to cleanſe, therefore this muſt be done by attention, in frequently examining when your beer is at its full head of working, or what is commonly ſaid, rather inclined to go back; when it is in that ſtate it ſhould be cleanſed immediately. This, I ſay, ſhould be attended to, notwithſtanding it ſhould happen at twelve o'clock at night; for this is the evil, by neglecting the proper time to cleanſe your beer it will not be able to fine itſelf in the caſks, and then ſome device muſt be uſed to fine it, which is too often injurious to the beer.

PATENT OFFICE LIBRARY

A very neceſſary Caution.

It is a common practice, when caſks are ſcalded or cleanſed, to expoſe them to the ſun and wind to dry, and there leave them till the time of cleanſing, then they are placed in the cellar, &c. and the beer immediately cleanſed into them; when the ſun, in warm weather, has penetrated through the wood and become ſo warm that you cannot conveniently lay your hand upon them; this is often done unthinkingly, but the caſks being thus heated by the ſun cauſes the beer to work too haſtily; after all the care and pains before taken, it here receives a material injury, by having, as may be ſaid, undergone a ſecond fermentation, and will reduce its ſtrength by working too haſtily out of the caſks, and very probably may be the cauſe of its not being ſoft and pleaſant; however, care ſhould be taken to get your caſks perfectly dry, previous to the cleanſing into them; in hot weather place them in the cellar, &c. ſome time before you have occaſion to cleanſe your beer into them.

Attention ſhould be paid in keeping your caſks filled up after cleanſing, to enable the yeaſt to diſcharge itſelf from the beer, for by ſo doing there will be the greater probability of your beer being fine; if the caſks are not kept filled up when working, the yeaſt cannot diſcharge itſelf from the beer, which, in change of weather, will be purging and hiſsing in the caſks, and will cauſe it to be harſh and unpleaſant; this is the principal cauſe why we have ſo many muddy ales. Attending your beer when working, by filling up the caſks, will be found to be of the greateſt utility, as you will have no occaſion to uſe any device to fine your beer, which will only attend to adulteration.

PATENT OFFICE LIBRARY

Small Beer.

As I ſaid before, ſmall beer is too frequently neglected, becauſe the maſter or miſtreſs of a family drink but a ſmall quantity of it. I verily believe there would be leſs *good* ſmall beer conſumed in a family of ſervants and workmen, than if it were inferior and bad in its quality. It may be thought ſtrange by adding the name of *good* to ſmall beer, but it muſt be acknowleged that there is a great diſparity in the quality of ales, and why not in ſmall beer; on the one had, it certainly depends on what length you draw from your quantity of malt.

Small beer ſhould be let down into the tun much warmer than ale; and as ſoon as it ſhews an inclination to work it ſhould be cleanſed; it will then work well in the caſks, and will have a quick, lively taſte. Small beer, not having a ſufficient ſtrength, cannot ſupport a long fermentation in the tun: for if it is worked cold, and left too long in the tun, it will drink flat and unpleaſant.

Now, as I ſaid before, there will be no more *good* ſmall beer conſumed in a family, than if it were ever so *bad*; for when a workman or ſervant has occaſion for a pot of ſmall beer, if bad, he will, perhaps, drink a part of it, and throw the remainder away, and, very likely, careleſsly leave the cock dropping, in order to get rid of ſuch a bad commodity the ſooner. Now, on the other hand, if the ſmall beer was *good*, the conſumers would take care to leave the cock, &c. ſecure, well knowing they ſhould not have a better ſubſtitute.

Cleanlineſs in the Cellar.

Care ſhould be taken to keep the cellar clean, (eſpecially thoſe who are ſituated near the ſouth aſpect; or ſhallow, where the ſun has any power,) by ſcraping the yeaſt from the bung-holes of the caſks, elſe in warm weather it will ſmell offenſive, and inſects will breed therein, which muſt be injurious to the beer, if the bung-holes are open.

The dropping of the cock, tap tubs, &c. will cauſe fulſome ſmells in the cellar, which frequently require to be waſhed down; for waſhing and cleaning your cellar often, will keep your beer in a cool ſtate, and will be the means of preventing mild ale from becoming ſtale.

Put ſome hops into your ale and ſmall beer caſks a few days before you want to tap them for uſe; even thoſe hops that have already been uſed in brewing will be found ſerviceable in fining your beer, and will not cauſe it to be too bitter, but will prevent your ſmall beer from becoming ſour. Notwithſtanding their being uſed in brewing, they will be found by experience to be very ſerviceable for the purpoſe before mentioned. Another advantage will ariſe, they will ſerve the uſe of freſh hops, which, when dear, will be found to be a conſiderable ſaving.

Note. They are recommended for beer that is for preſent drinking, as they cannot be expected to be ſufficient for beer intended for a long ſtanding.

Another advantage will be found when a length of ale is brewed, and no ſmall beer made, the hops will then be found of greater utility, as they will contain the ſame quality as the ale they were brewed with; conſequently the ale and ſmall beer they are put into will receive a greater advantage therefrom.

This may not ſeem conſiſtent, as mild ales and ſmall beer ſeldom have any hops put into the caſks; but when a caſk of beer is a conſiderable time at tap, it will certainly want ſomething to feed on; this is one cauſe why ſmall beer generally turns ſour when it is nearly out; now by uſing the before mentioned hops it will be found to be a conſiderable remedy to prevent both mild ales and ſmall beer from being hard and unpleaſant.

The reader will obſerve, theſe hops having performed their duty, they are of no expenſe, only the trouble of putting them into the caſks. The ſmall beer muſt derive a conſiderable advantage from thoſe hops when a guile of ale was only brewed from them. Take care to put them into the caſks as ſoon as they are cold, for by being too long expoſed to the air they will loſe their virtue.

I ſhould not have ſaid ſo much concerning ſmall beer, but the price of malt is ſo conſiderably advanced, to what it was formerly, that ſmall beer is become an expenſive article, where there is a numerous family.

If you obſerve the before mentioned directions you will not have your ſmall beer ſo unpleaſant, particularly when your caſk is nearly out

The moſt wholeſome ſmall beer is made from an intire guile of ſmall, for then you have the whole of the ſpirit and ſweetneſs of the malt; it will keep better and drink much freſher than if it were to be made from the goods after a length of ale.

If you rack your beer, fail not to put ſome hops into the caſks, wetting them firſt with ſome of the ſame beer, or rather wet the hops with ſome wort when brewing. If you want to haſten your beer for drinking, put the hops into the caſks when they are warm; if your beer is for a long ſtanding, put the hops in your caſks when they are cold, giving them a ſtir to ſeparate them in the beer.

Take care not to be under the neceſſity of tapping your ale or ſmall beer before it has actually done working, for by ſo doing you will prevent it from becoming fine: new beer may be claſſed with new bread; for the newer you draw your beer the more there will be conſumed; new beer is not ſo ſatisfying as it is when come to a more mature age.

Beware, leſt you forget to pay attention to your beer which is at tap; for, "as the eye of the maſter maketh his horſe fat," ſo the head of a family, now and then giving a look into his cellar, may be the cauſe of beer drinking more agreeable to his palate, by taking care the vent-holes are kept cloſely ſtopped, and the cocks ſecure.

Do not fail to ſtoop your caſk when the beer is about two parts in three out; this ſhould be done whilſt the tap is ſpending, for then you will not diſturb the ſediment. By ſtooping the caſk when the beer is about two parts in three out will prevent it from becoming flat and ſour; when, on the other hand, it is too frequently to be obſerved when a perſon is drawing a pot of beer, the ſtream is impeded; for the beer, being ſo nearly out, will not run till it is ſtooped. Now before this, the cock diſcharging the beer but ſlowly, the air is admitted into the caſk, which cauſes the beer to drink flat, and, perhaps, turn ſour: therefore this will enforce the neceſſity of ſtooping your caſk before it be ſo nearly out.

This is a fault with many publicans, not paying attention to their cellars; even many of thoſe who brew their own beer are neglectful, notwithſtanding their own intereſt and credit is concerned. Tis not uncommon for the vent-peg, and even the bung, to be left out of thoſe caſks which are actually on draught.

Publicans, who retail common brewer's beer, and neglect their cellars, have this excuſe, if their cuſtomers find fault with the beer, by ſaying "tis ſuch beer as my brewer ſends me," ſo it may be; but let a publican be ſerved with beer of the firſt quality, it entirely depends on the management of the retailer thereof, whether the beer ſhall be of a good or bad quality. This is proved by perſons in the ſame town, each being ſerved with beer from one and the ſame brew-houſe; there will be generally a diſparity in the quality after it comes into the ſtock of the reſpective retailers thereof, which proves it to be the good or bad management in the cellar.

I am convinced I ſhall not offend the *attentive* publican by what I have ſaid reſpecting the cellar; but ſhould this fall into the hands of the *inattentive*, it may offend; but that I will excuſe, if, by the reading of this, he ſhould be convinced of his error, and pay more attention to his cellar; that he may be enabled to draw a pot of beer to pleaſe thoſe uſeful and valuable men, the labourer and the mechanic; and where they uſed to drink but one pot of beer with him, they may, from finding his ale much better than uſual, perhaps, drink two.

PATENT OFFICE LIBRARY

On the drying and qualities of Malt.

I ſhall here give a few obſervations on malt, which was my principal reaſon for introducing this work to the public, well knowing that many who profeſs the art of brewing have very little knowlege of the nature and quality of the malt and hops they brew with.

Malt is dried with coke, coal, wood, furze, and ſtraw. The beſt and ſweeteſt malt is dryed with coke, or welch coal; becauſe the coke, or coal, gives a regular and gradual heat. Malt dryed with coke, or coal, will be of a bright, clean colour, becauſe the fire is free from ſmoak. It is alſo to be obſerved that malt dryed with coal, or coke, is generally well cured, that is, ſound dryed, becauſe the coke or coal fire is fierce and ſtrong.

If malt is dryed with a wood fire it greatly depends on the wood being houſed in a dry ſeaſon; for if the wood is dry it will produce a clear fire, free from ſmoak, and the malt will be of a bright colour; but if the wood is wet and ſugged, the fire will not be fierce, but will be ſmoaky, and will certainly cauſe the malt to be of a dull colour; and the beer brewed from ſuch malt will conſequently have a ſmoaky taſte: therefore it depends on the attention of the maltſter, in houſing his wood in good order, for without that attention he cannot ſerve his cuſtomers with good, bright, well cured malt.

I have ſeen very fine malt dryed with ſtraw, it being leſs ſubject to ſmoak than malt dryed with wood; but this mode of drying is very tedious, becauſe a perſon muſt always attend the fire. In thoſe countries where it is ſtraw-dryed, wood and coal is dear, therefore ſtraw is uſed as a ſubſtitute for coal, &c. However, if care be taken, malt may be well cured with a ſtraw or wood fire, but not to equal welch coal, or coke, becauſe the fire may always be kept up ſo as to produce a regular heat.

Fuel being much dearer than formerly many maltſters are too ſparing of their fire; and here ariſes the principal cauſe why we have ſo much bad beer; for if malt is not well cured, that is, ſound dryed, it will not produce good and wholeſome beer.

Malt may appear to be of a fine amber colour, and this may be done by making a ſtrong fire a few minutes before the kiln is ſhifted, therefore the colour is not at all times a rule for its being well dryed. No malt ſhould be uſed till it has been off the kiln a month, at leaſt; at the end of that time, if the malt bites quick and criſp, you may conclude it is well dryed.

It will be very neceſſary, when you give orders for a brewing of malt, to requeſt your maltſter to ſend the malt well dryed; this caution may induce him to pay more attention in the drying of his malt.

When a brewing of malt is ordered by private families, perhaps no order is given reſpecting any particular ſort, that is to ſay, whether pale, amber, or brown, for theſe are the three ſorts of malt; but many retail maltſters in the country have but one ſort of malt, and, in fact, one ſort is ſufficient, provided care is taken to dry their malt ſound, of a fine amber colour.

Now I again repeat that the principal reaſon of our having ſo much hard and ſour beer, is owing to the malt being under dryed; for malt is the fundamental article in brewing. If a guile of beer is made from under dryed malt it will not be of a fine bright colour, and an extra boiling of the worts will not have the deſired effect; then you are under the neceſſity of uſing finings and other noſtrums, which are only temporary, for no other ingredients whatever can be ſo beneficial to beer as malt and hops, and if thoſe two commodities are in a good and genuine ſtate, you will not have occaſion to ſeek for any other art or device whatever. Another conſiderable advantage will ariſe, for each buſhel of ſound dryed malt will produce a gallon of wort more than ſlack or under dryed malt; this is proved by brewing two ſorts of malt, that is, malt perfectly dryed will diſcharge the wort freely, and the grains will be dry and light; when, on the other hand, if a brewing of beer is made from under dryed malt, the grains will be clammy and heavy, owing to the raw ſtate of the malt, therefore a part of the wort cannot diſcharge itſelf, which is a ſufficient voucher that the perfectly dryed malt will produce a greater quantity of wort of an equal degree of ſtrength.

I hinted before that malt ſhould not be brewed till it has been off the kiln a month; but if malt is ſix or ſeven months old it will be the better, becauſe it will become mellow, and your beer will be much ſofter and better than if uſed immediately from the kiln.

Between michaelmas and chriſtmas the retail maltſter's ſtock of old malt generally lies in a ſmall compaſs, and will be ſlack; I ſhould at this ſeaſon recommend part old and part new, for the one will help the other.

On Hops.

Many profeſſed brewers are particularly attached to the colour of the hops, that is, they are partial to thoſe of a fine green colour; theſe are certainly to be prefered, if they were ripe when gathered:—to prove their goodneſs, rub them between your fingers, if they are in full condition they will ſtick to your fingers, will have a good ſtrong ſcent, and the ſeeds will appear full and yellow.

Brown ſpots are frequently to be ſeen on hops; theſe are, in general, hops that came to a full ripeneſs before they were gathered. High winds and rain frequently happen about the middle or latter end of the hop ſeaſon, which will disfigure them in their colour in a few hours, ſo that the colour is not at all times to direct you as to their goodneſs.

In the hop countries moſt hop-planters keep thoſe hops which are moſt disfigured in their quality ſeparate and apart, when picking, from thoſe of a brighter colour; thoſe which are of an inferior colour are kept for their own uſe, and diſpoſed of to their neighbours,

bours, it being their opinion that they anſwer the purpoſe in brewing nearly as well as thoſe of a brighter colour, provided they are in full condition, that is if they are full of ſeeds; for in the ſeeds is the virtue and ſtrength of the hop.

The quantity of hops uſed in brewing is generally half a pound to a buſhel of malt, and ſo in proportion to a greater quantity; if mild ale, for preſent drinking, a leſſer quantity will do; but this muſt be left to the diſcretion of the brewer, or maſter of a family, as ſome are more partial to the taſte of the hop than others.

As to the quantity of beer each buſhel of malt ſhould produce, it muſt reſt on the option or circumſtances of the brewer, or the head of a family. A buſhel of malt will produce ten gallons of good ale; but the greater the quantity of malt, brewed at one time, the better will be your beer.

COMMISSIONERS OF PATENTS FOR INVENTIONS

THE END.

1 MAY 70

mi